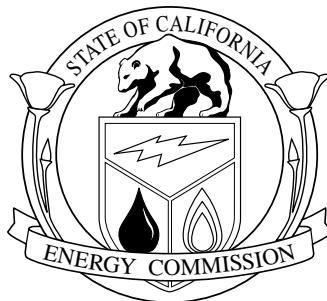


**PROPOSED GENERATOR  
REPORTING REQUIREMENTS:  
BIENNIAL POWER PLANT CHARACTERISTICS  
AND QUARTERLY GENERATOR  
OUTPUT AND FUEL USE**

DRAFT



Gray Davis, *Governor*

APRIL 1999

**CALIFORNIA  
ENERGY  
COMMISSION**

COMMITTEE REPORT

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## *Disclaimer*

This report was prepared by the California Energy Commission's Ad Hoc Information Committee to revise the Energy Commission's Data Collection Regulations in light of the Restructuring of the Electricity Industry. The report is proposed for adoption at the Energy Commission's Business Meeting on May 26, 1999. The views and recommendations contained in this document are not the official policy of the Energy Commission until the report is formally adopted.

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# EXECUTIVE SUMMARY

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## OVERVIEW

In this report, the Ad Hoc Information Committee lays out its proposal for collecting data on power plant characteristics, generator output and fuel use of generation facilities. The Committee's proposal outlines a new approach for acquiring data that streamlines and reduces overall reporting burdens for the industry from those practices currently in place.

The Committee believes that this approach will meet the Commission's goal of having a sound information base on which to develop and implement prudent energy policy for the State. The Energy Commission has very broad analysis and data-collection authority under the Warren-Alquist Act, which allows it to monitor energy industries and assess long-term trends in order to develop and implement energy policy for the State. In much the same way as the Energy Commission tracks the oil and gas industry, the data the Committee is proposing to collect would be used by the Energy Commission in carrying out its mandated functions of market monitoring, trends assessment and policy development.

The primary benefit to the State of having essential information on, and an understanding of, the electricity industry is to:

- ♦ Serve as an early warning system for the Governor and Legislature and other policymakers on emerging problems or opportunities in electricity markets,
- ♦ Identify and analyze market uncertainties in the mid- and long-term that are not addressed by market institutions such as the California Power Exchange (PX) and California Independent System Operator (ISO),
- ♦ Assess the environmental, health and safety, and other system impacts and benefits of new power plant and transmission line additions.

The Committee recognizes that efforts are currently underway in the Legislature and within the Administration to reorganize government in light of the electric industry's restructuring. The Committee believes that while the roles of different governmental and quasi-governmental entities in the electricity market may change as a result of these efforts, the baseline data outlined in this proposal will still be needed to address issues in the State's purview. The streamlining of data collection outlined below will reduce the burdens on the electric industry of past regulations and make compliance with new regulations much easier. Without these changes, data collection is likely to be out of step with the restructured electricity industry.

## PAST DATA COLLECTION PRACTICES

Historically, the Energy Commission has collected data on the electricity industry through its Quarterly Fuels and Energy Reporting (QFER) and Common Forecasting Methodology (CFM) regulations. QFER provides historic data about energy consumption and how it was supplied.

Under QFER the Energy Commission collected data on electricity and natural gas consumed in California, electricity generated in the State, energy balances for each utility detailing sources and dispositions, and accuracy standards for end-user classification reporting requirements. The predominant source for QFER data over the last twenty years has been utilities. However, QFER data were also supplied by independently owned electric generators (without a sales relationship with a utility) and independent natural gas marketers (not using utility distribution pipelines).

The Energy Commission used data collected under CFM primarily in the preparation of its Electricity Report. The primary focus of CFM data was on projections of future electricity demand and supply. The data collected on the electricity industry under QFER and CFM were supplemented to some extent with data collected by federal agencies (i.e., Federal Energy Regulatory Commission and Energy Information Agency) and the California Public Utilities Commission.

In addition to preparing the Electricity Report, the Energy Commission has used data that it collects on electricity as input to a number of valuable products including the Commission's ***Energy Watch*** publication and ***Net System Power Report***, as well as the ***California Statistical Abstract***. In addition, the Energy Commission has used these data to respond to an enormous amount of special requests from other State and federal agencies and private consultants and individuals about how electricity and natural gas are used and produced.

## **FAIRNESS AND STREAMLINING DATA COLLECTION**

The Committee is proposing major streamlining of data collection to accommodate the objective of reduce the burdens on market participants in the restructured electricity market. Prior to restructuring and divestiture of investor-owned utility (IOU) generation, the IOUs were a primary source for data on California's electricity system. Under the restructured market, many individual market participants now have data that were historically provided to the Energy Commission by the IOUs. The Committee's proposal recognizes this fundamental shift in the source of generator data.

The Committee struggled with issues of equity in deciding what to require of both the new participants, including Energy Service Providers (ESPs) and generators, and the remaining entities of monopoly IOU providers, primarily the Utility Distribution Companies (UDCs) in the restructured market.

The Committee has attempted to strike a balance between competing interests in the proceeding by not placing undue burdens on new market participants, recognizing that some of the new participants are small companies with limited resources functioning in a market with slim margins. A key action in striking this balance is requiring the generators to file limited data directly to the Energy Commission. In developing this recommendation, the Committee relied on the principle, previously adopted by the Energy Commission to guide the rulemaking on data collection, that entities performing equivalent functions or providing equivalent services should have equivalent data submission responsibilities.

At the same time, the Committee wanted to resist the temptation to rely on existing monopoly entities for data that may no longer be appropriate for them to file on the behalf of others. The Committee also recognize that funding of many of the past resource-planning activities, which were the source of much of past data filed by UDCs, have been drastically reduced unilaterally by the UDCs.

## **A NEW METHOD FOR ACQUIRING DATA**

In order to address the varied and competing concerns of entities who participated in the proceeding, the Committee has developed a new method for acquiring data.

1. The Energy Commission will develop one database for power plant characteristics. Rather than having parties routinely re-file all their data, as required in the past, the Committee proposes that staff periodically send the relevant portions of this database to individual generators for them to update. As a result of this approach, the Committee is proposing to eliminate the vast majority of data and projections previously required under Common Forecasting Methodology (CFM). The staff will be responsible for needed forecasting activities (previously done by utilities) that are necessary for the Energy Commission to meet its assessment and policy development obligations. This approach significantly reduces burdens on UDCs while simultaneously placing only minor data-collection responsibilities on new market participants such as independent generators.
2. The Committee is also proposing acquiring and using generator output and fuel use data filed with other government agencies, in particular the Federal Energy Information Agency (EIA), to the maximum extent feasible, as a compliance option for generators. As a result of this approach, the Committee is proposing to eliminate and consolidate a number of forms for the data collection historically done under QFER, significantly reducing the number of QFER forms the Energy Commission will collect in the future. This change will help to reduce duplicative and redundant filing of data by market participants.

The Committee is convinced, based on its understanding of the costs of meeting these reduced data collection requirements encompassed by our generator data collection proposal, that the public benefits justify the reporting burdens.

## **NEXT STEPS**

The Committee intends to hold a hearing to get stakeholder input regarding its proposal for generator reporting requirements outlined in this report. Based on input from outside parties, the Committee will consider revisions to the report prior to adoption by the full Commission. The report will be scheduled for consideration at a Commission business meeting as early as May 26, 1999.

Following adoption of the proposal for generator reporting requirements, the Committee would then begin drafting regulations and initiate a public process for stakeholder input on the specific language. A preliminary schedule for drafting and approval of data collection regulations is outlined in Section II of the report.

# I. BACKGROUND

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## INTRODUCTION

In this report, the Ad Hoc Information Committee (Committee) lays out its proposal for collecting essential data from generators on power plant characteristics, generator output and fuel use of their generation facilities. The data the Committee is proposing to collect will be used by the Energy Commission in carrying out its mandated functions of market monitoring, trends assessment, and policy development. This proposal outlines a new approach for acquiring necessary data that streamlines and reduces overall reporting burdens for the industry from those practices currently in place. The Committee believes this approach will meet the Energy Commission's goal of having a sound information base on which to develop and implement prudent energy policy for the State. The Committee also believes this new approach is more appropriate for the restructured electricity market than past practices.

## LEGAL MANDATES

The Warren-Alquist Act mandates the Energy Commission to evaluate the trends in energy supply and demand, statewide demographics and economic factors that would effect the demand and supply of energy; and the social, economic and environmental implications of these trends<sup>1</sup>. As such, the Energy Commission has very broad analysis and data collection authority under the Act to allow it to monitor energy industries and assess long-term trends in order to develop and implement energy policy for the State. The Act requires the Energy Commission to analyze supply and demand for all energy markets and energy products and services including electricity, natural gas, petroleum and petroleum products, transportation and alternative fuels, energy efficiency, and renewables.

In its June 12, 1998 Report on the ***Energy Market Information Proceedings***, the Committee developed findings of fact and conclusions of law with respect to its jurisdiction and authority for its information-related functions. This report was developed largely to respond to parties' questions and concerns regarding the Energy Commission's authority and jurisdiction in the restructured electricity market. At its June 24, 1998 Business Meeting, the full Energy Commission adopted the Committee's findings and conclusions dealing with the Energy Commission's jurisdiction and authority, as well as its roles and functions in the restructured electricity market.

The Energy Commission concluded that its responsibilities for assessing and monitoring energy market trends and developing energy policies continue to be justified and may become more important as the competitive electricity market emerges. The fundamental public interest rationale for continued assessment and monitoring of the electricity industry are the statewide electric system impacts and environmental impacts associated with electric facilities. The addition of new power plants and transmission lines directly impacts the operation of other power plants and transmission lines in the interconnected electricity grid and involves environmental

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<sup>1</sup> Public Resources Code Section 25216.5

and other impacts that extend beyond the local area where facilities are sited. As such, an understanding of these impacts is an essential input to developing informed State energy policies.

The Energy Commission found that while the nature of the electricity industry has changed to rely on market forces and competition, restructuring, in and of itself, does not eliminate the need for its electricity monitoring and policy development functions. It is important to note that other energy markets have become increasingly competitive over the last 20 years, in particular oil and petroleum products markets. The Energy Commission has continued to monitor trends and assess these competitive markets, identified major emerging problems and helped to avoid some projected future problems altogether. These activities were supported by ongoing data collection on oil and petroleum markets that provided the information base for analytical studies.

The Energy Commission went on to endorse certain activities, including data collection, that support these core functions and concluded these activities remain important to State decision-makers, consumers and market participants. The Energy Commission concluded that electric industry restructuring does not change the Energy Commission's authority to collect data necessary to carry out its mandated functions. The Energy Commission also concluded that it has ample authority under existing mandates to collect data to support its core functions from new market participants, where appropriate.

## PAST DATA COLLECTION PRACTICES

The Energy Commission has collected two types of data with respect to electric generation in the State:

- ♦ Generator output, or production, and fuel use for various facilities; and
- ♦ Power plant, or generator, characteristics including engineering characteristics of various facilities.

Historically, data on generator output and fuel use was collected primarily through the Quarterly Fuel and Energy Reporting (QFER) process. Utility Monthly Fuel and Operations Report (UMFOR) and Federal Energy Regulatory Commission (FERC) forms supplemented these data. QFER included different reporting requirements for generation facilities depending on their ownership by utilities, private entities selling power, private entities producing power for their own use onsite, and facility capacity. QFER consists of approximately 10 different forms requesting data on electricity generation output and fuel use. (See **Appendix A** for listing of relevant forms)

Data on power plant characteristics was historically collected through the CFM process under the Biennial Forecast and Assessment of Loads and Resources Regulations. A great deal of specific information was reported by utilities through CFM. Unlike the QFER data forms that were adopted once and remained static, CFM was explicitly revised and adjusted as the first step of each **Electricity Report (ER)** cycle. The concept was to adjust the specific filing requirements to satisfy the specific information needs of the likely issues to be addressed in the **Electricity Report**. CFM regulations formed the framework for utility filings of demand forecasts and resource plans that were then turned into specific filing requirements.

***Electricity Report 96*** involved approximately 20 individual forms for “non-regulated” utilities and approximately 35 forms for utilities. (See **Appendix A** for list of relevant forms.)

One of the primary uses for the above data prior to restructuring was for the Energy Commission to carry out its forecasting and assessment function to develop State energy policy through an open process of determining trends, developing projections, and assessing options for meeting anticipated demand growth. The resulting ***Electricity Report***, mandated by the Warren-Alquist Act, guided government determinations of how much electricity was needed and explored alternatives to constructing new generation facilities. It also served as a central basis for the Energy Commission’s power plant siting process. In addition, data was used to support other analytical studies on issues including electric system reliability, air impacts, the role of municipal utilities, deregulation issues and other emerging issues.

## RESTRUCTURED ENVIRONMENT

Restructuring of the electricity market has led to increased reliance on competition and introduced new market participants, market institutions, and products and services. Prior to restructuring, investor-owned and municipal utilities were the primary agents generating and delivering electricity to end-use customers. These utilities were the principal sources for data and information on the electricity industry. The Energy Commission routinely collected data from electric utilities to carry out its historic, mandated responsibilities in assessing trends, resource planning and power plant siting. Beginning in the 1980s, independent power producers became an additional source of data on their electricity production that was sold to utilities.

Electric industry restructuring allowed for the creation of new market participants including energy service providers, scheduling coordinators, aggregators, and non-utility generators. New market institutions including the ISO and PX were also created which changed the relationships of the various market participants to each other. In addition, with the divestiture of IOU generation, IOUs no longer control the majority of generation in the State. Municipal utilities continue to generate and serve the needs of their customers, some participating in the ISO and PX while others are not. The designers of restructuring anticipated the emergence of new types and classes of independent generators who would sell directly to the market, not through contracts with utilities, as was the case in the past. Consequently, continued reliance on utilities for data regarding all of the generation in the State is no longer appropriate.

At the same time, the competitive nature of the restructured market means that data reporting burdens must be carefully weighed against the need for the data. Many new entities in the market are small generators with limited staff and resources. In addition, the changing role of IOUs means that much of the historic planning-type activities once conducted by these utilities that formed the basis for much of the data submitted to the Energy Commission are no longer being undertaken in the restructured market.

The role of government in the restructured environment is also being re-examined. The supply and resource planning activities traditionally carried out under the ***Electricity Report*** are being re-evaluated. In crafting these portions of the Warren-Alquist Act, the Legislature

could not have foreseen the introduction of competition and restructuring of the electricity market that would

occur over the twenty years since its passage. As a result, the regulatory and data collection requirements of the ***Electricity Report*** and CFM may no longer be in step with the restructured environment. The Energy Commission is considering this issue, along with other issues regarding our functions in the restructured market in other public processes.

These factors have led the Committee to examine the Energy Commission's need for data, the type of data to be collected, and the most appropriate sources for collecting necessary data. For the purposes of this proceeding, the Committee is addressing data needs for the Energy Commission to carry out its mandated functions of market monitoring, trend assessment, and policy development.

Under the monopoly structure, the Energy Commission assessed statewide and service area supply and demand issues. Since monopoly providers had a geographic franchise service territory and an obligation to serve, the service area approach to analyze regional issues and impacts made sense. The Energy Commission forecasted demand and assessed supply trends, including power plant operating characteristics such as reserve margins, other components of supply, and demand side strategies for each major service area.

Under restructuring, statewide assessment remains an important duty of the Energy Commission. However, service territories no longer adequately define the regional aspects of the electricity system. In the restructured environment, the structure of the ISO and PX is based on zones (established based on transmission capabilities) within the State. Generators bid their generation into the PX on the basis of zones. The ISO operates the system to provide transmission services, congestion mitigation and ancillary and other essential network services also on a zonal basis. In accordance with this shift in the structure of the market, the Energy Commission may choose to analyze regional electricity system issues and impacts to correspond to these zones.

## II. PUBLIC PROCESS

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### ENERGY MARKET INFORMATION PROCEEDING

In order to bring its data collection and information-related functions and responsibilities more in line with this restructured industry, the Energy Commission established the Ad Hoc Information Committee (Committee) and delegated to it three principal tasks:

- ♦ Initiate a rulemaking to amend and delete existing regulations and adopt new regulations relating to disclosure of Energy Commission records (confidentiality regulations);
- ♦ Convene a proceeding to serve as a central forum for the discussion of issues associated with the Energy Commission's data-related responsibilities that may be broader than regulation changes;
- ♦ Initiate a rulemaking to revise the Energy Commission's data collection regulations.

The Committee prepared revisions to the Energy Commission's confidentiality regulations that were adopted by the Energy Commission on April 15, 1998 and have since been approved by the Office of Administrative Law. The Committee held a series of workshops to address the broader issues of data needs and the necessary changes to data collection regulations in light of electric industry restructuring. Parties raised concerns regarding the Energy Commission's authority to collect data from various market participants and the functions the Energy Commission would perform under restructuring. The Committee's work on the rulemaking was effectively suspended while it deliberated these concerns. The June 12, 1998 Report on the ***Energy Market Information Proceeding***, previously referred to, dealt with the primary issues of jurisdiction and functions. On June 25, 1998 the Committee released its ***Scoping Report Describing Resumption of the Rulemaking*** that outlined the scope and timelines for the resumed rulemaking.

The Committee held a series of five workshops to review exact data needs and various alternative ways that data needed by the Energy Commission could be acquired. There were a number of active participants in these workshops including representatives from UDCs, ESPs, independent generators, owners of divested generation, and others. Staff prepared a series of issue papers dealing with data needs, methods and uses that were released and discussed at the workshops. In addition, parties filed comments and proposals for the Committee's consideration. **Appendix B** outlines the workshops, staff papers and comments filed by parties in the proceeding.

### NEXT STEPS

The Committee intends to hold a hearing on May 10, 1999 to get stakeholder input regarding its proposal for generator reporting requirements outlined in this report. Based on input from outside parties, the Committee will consider revisions to the report prior to adoption by the full Commission. The report would then be scheduled for a Commission business meeting in late May.

Following adoption of the proposal for generator reporting requirements, the Committee would then begin drafting regulations and initiate a public process for stakeholder input on the specific language. A preliminary schedule for drafting and approval of data collection regulations is outlined below.

**Energy Market Information Proceeding  
Schedule for Rulemaking on Generator Reporting Requirements**

April 28, 1999	Release of Committee Report
May 10, 1999	Committee Hearing
May 26, 1999	Possible CEC Adoption "In Concept"
Late June, 1999	Release of Draft Proposed Regulations on Generator Reporting Requirements
Mid July, 1999	Workshop on Draft Proposed Regulations on Generator Reporting Requirements
Late July, 1999	Release of Proposed Regulations and Initiation of Formal Public Review Period (45 day language)
Early Sept, 1999	CEC Adoption of Regulations on Generator Reporting Requirements Regulations
Early Oct., 1999	Submission of Regulations to OAL
Nov., 1999	OAL Approval
4 <sup>th</sup> Quarter, 1999	New Regulations on Generator Reporting Requirements become effective

### **III OVERVIEW OF DATA COLLECTION PROPOSAL**

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#### **PRINCIPLES**

The Energy Commission endorsed the Committee's policy goals for the rulemaking proceeding on data collection at the same time it adopted findings and conclusions on jurisdictional issues in June 1998. The Energy Commission affirmed the Committee's goal of streamlining its data collection activities where possible and developing the most efficient, equitable and cost-effective method for acquiring necessary data. The Energy Commission determined that the function a market participant performs, regardless of ownership or monopoly status, should define what data it supplies. This was based on the policy principle that entities performing equivalent functions or delivering equivalent services should have equivalent data-submission responsibilities.

The Energy Commission confirmed that the Committee's policy should be to pursue data necessary to allow the Energy Commission to accurately project loads and adequately model the electricity system as part of its electricity monitoring trends assessment and policy-development functions. The Energy Commission endorsed the Committee's examination of new methods to obtain these data in the rulemaking.

On the supply side, the Energy Commission endorsed the principle that it needs sufficient or appropriate data to allow it to characterize power plants and the electricity system including fuel use, heat rates and other characteristics to allow system modeling. The Energy Commission supported the need for system and generation data including ISO/PX prices and quantities to support analytical reports. As part of its streamlining efforts, the Energy Commission endorsed the principle that it should rely on one form or set of forms for all entities who perform the same function in the market.

#### **ASSESSMENT ACTIVITIES AND USES FOR DATA UNDER RESTRUCTURING**

As part of its broad assessment authority under the Warren-Alquist Act, the Energy Commission conducts analytical activities to support three primary functions relevant to this proceeding: electricity monitoring, trend assessment and policy development. The primary purpose of these activities is to inform the Governor, the Legislature and the public about the mid- and long-term outlooks for the electricity industry and to develop robust strategies under a range of possible future scenarios. We can also examine the impacts of future demand and supply trends on the economy, the environment and the public health and safety to guide policy makers in addressing important energy issues and developing sound energy policy.

One of the primary objectives of the Energy Commission in assessing the electricity market is to inform the Legislature and Governor about whether the competitive generation market and its structures are meeting the goals and assumptions contained in AB 1890.<sup>2</sup> In moving from a regulated generation market to a competitive one the Legislature intended:

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<sup>2</sup> Assembly Bill 1890, Statutes of 1996

- ♦ That the State's citizens and businesses achieve the economic benefits of restructuring;
- ♦ That new market structures provided competitive, low-cost and reliable electric service;
- ♦ That customers in the new market have sufficient information and protections; and
- ♦ That California's commitment to developing diverse, environmentally sensitive electricity resources is preserved.

The Energy Commission intends to use its analytical capabilities to address these objectives and issues and provide essential information about how the market is performing and the extent to which the public policy goals in AB 1890 are being met. This information will be important as the market continues to evolve and we move through the transition period to a more fully competitive market. The Energy Commission will need some fundamental data on generator output and fuel use, as well as power plant characteristics, to adequately assess the market and the interconnected electricity system under restructuring.

The Energy Commission serves as an early warning system for identifying emerging problems and opportunities. We examine uncertainties, market barriers, and diseconomies for the energy industry and help to identify opportunities to improve efficiency, lower prices, minimize environmental impacts and conserve natural resources. The Energy Commission can also play an important role in identifying trade-offs between investments in generation, transmission and load reducing strategies. As the restructured market develops, the Energy Commission can provide information and assess ways to increase the competitiveness of electricity components such as ancillary services that are still being provided through a mix of cost-based and market-based mechanisms.

To support these analytical activities, the Energy Commission collects data and develops accurate information on current and historic electricity production, resource mix, and fuel consumption. This involves assessment of the California market and its supply and demand relationships with adjacent regions in the interconnected Western Grid. The Energy Commission examines supply-side performance, identifying trends in system performance, and potential concerns and opportunities should these trends continue. In this capacity, we also develop the **Net System Power Report** required by SB 1305.

As part of our analyses, we evaluate prospective demand growth and supply changes and assess whether reliability goals are likely to be met in the intermediate- and long-term.<sup>3</sup> The Energy Commission develops and publishes future trend assessment of retail electricity prices and major component services. We also forecast market-clearing prices and assess whether market-clearing prices appear to be sufficient to support additional generation construction. In addition, we propose to assess the value of demand-side bidding into the PX and the ISO as an element of future reliability standards and examine whether the costs of metering and price

signaling justify their benefits. The Energy Commission can also assess environmental benefits of renewables and alternative technologies given technological performance,

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<sup>3</sup> Under Warren-Alquist Act Sections 25305-8.

regional environmental licensing requirements, land-use compatibility and system impacts of hypothetical increments of supply resource additions.

## **A NEW CONCEPT FOR ACQUIRING DATA**

The Committee is proposing major streamlining of data collection to accommodate the objective of reducing burdens on market participants in the restructured electricity market. The Committee has struggled with issues of equity in deciding what to require of both the new participants, including ESPs and generators, and the remaining entities of monopoly IOU providers, primarily the UDCs in the restructured market.

The Committee has attempted to strike a balance between competing interests in the proceeding by not placing undue burdens on new market participants, recognizing that some of the new participants are small companies with limited resources functioning in a market with slim margins. At the same time, the Committee wanted to resist the temptation to rely on existing monopoly entities for data that may no longer be appropriate for them to file on the behalf of others. We also recognize that many of the past resource planning activities, which were the source of much of past data filed by UDCs, has been unilaterally reduced by the UDCs.

In order to address the varied and competing concerns of entities who participated in the proceeding, the Committee has developed a new concept for acquiring data. The Committee has assessed and balanced the actual burden for providing data against the need and uses for that data. The Committee is convinced, based on its understanding of the costs associated with the reduced burden represented by this proposal, that the public benefits justify the reporting requirements. The Committee is seeking additional information from parties on the costs associated with data submission requirements contained in this proposal.

The Committee has developed a proposal that includes a graduated set of requirements based on the size of power plants, reflecting their importance to the Commission's understanding of the electricity system and the potential impacts of various changes to that system. The Committee is proposing to require a limited set of plant-specific data on power plant characteristics only for those power plants 50 MW or larger.

The Energy Commission will undertake the development of one database for power plant characteristics data. Rather than having parties file all their data as required in the past, the Committee proposes that staff periodically (every two years) send the relevant portions of this database to individual generators for them to update. This approach significantly reduces burdens on UDCs, while at the same time placing only minor data collection responsibilities on new market participants such as independent generators. In addition to the development of a database, the Committee proposes the Energy Commission staff take on responsibilities for the forecasting and estimation of a number of variables regarding generation that were previously conducted by utilities. These new activities for staff will have associated resource implications for the Energy Commission that will need to be addressed. In addition, the participation of industry in a forum to assist staff in develop estimation and/or forecasting methods to develop high quality data

will be essential to the success of this effort. The Committee believes this approach is likely to be adequate for our data needs, but reserves the flexibility for the Energy Commission to revise the approach should it prove to be unsatisfactory.

The Committee is also proposing the use of data filed with other government agencies, in particular the Federal EIA, to the maximum extent feasible as a compliance option for generators. This will help to reduce duplicative and redundant filing of data by market participants. In general, when the reporting requirements of another entity correspond to the Energy Commission's for one or more variables, a generator may report information using that entity's forms. EIA Compliance options are outlined in Sections IV and V. In addition, the Committee proposes that staff review EIA and ISO forms and develop a technical reference report that will identify additional acceptable compliance options. Staff will update this report periodically to include revisions to the forms used by other agencies. This report will be used to guide opportunities that generators have to use alternative compliance options.

Finally, the Committee is proposing to eliminate the vast majority of data and projections from utilities previously required under CFM. Upon adoption of regulations implementing this proposal, staff will take on responsibility for forecasting activities, previously undertaken by regulated utilities, that are necessary for the Energy Commission to meet its assessment and policy development obligations.

As required under past data collection practices, entities submitting data under this proposal would be required to attest to its accuracy and validity. The proposal imposes an obligation for parties to provide data of the specific type requested, of the best quality available, and according to schedule. In addition, Energy Commission staff, as with other data collected, will conduct the necessary reviews of data submissions to ensure compliance and accuracy of data filings.

## **POWER PLANT CHARACTERISTICS**

The Committee has identified a new approach to the data collection methods currently used for power plant characteristics. As noted above, this approach relies on the Energy Commission providing one database on power plant characteristics with biennial updating by market participants. This involves a major shift in responsibility for maintaining data to the Energy Commission. Generators would only be obligated to provide biennial updates.

In the past, the database for generator characteristics was supplied by utilities and updated filings were required under Energy Commission regulations. Under the Committee's new approach, the Energy Commission staff would take on the burden of building a database on generator characteristics and would require only a biennial updating by generators. The Energy Commission staff would send the relevant portions of the database to generators every two years and ask that they simply review the data and note any changes in power plant characteristics. This represents a major streamlining of data collection from market participants and substantial shift of burdens to the Energy Commission.

## Implementing the Principles

The Committee's recommendations are guided by the principles of pursuing data-collection methods that are not overly burdensome for any single entity, and that balance reporting burdens with public benefits.

It was also the Committee's goal to identify opportunities for the Energy Commission staff to facilitate the reporting process. Additionally, the principle that "equivalent function defines data collection" formed the basis of our power plant characteristics data collection recommendations. In this proposal, utility and non-utility generators are treated the same where they perform the same functions. Where a distinction is drawn is in regards to the size or capacity group of the generator.

## CFM Reporting is Suspended

The Committee proposes, consistent with suspension of CFM, that historic CFM requirements, including long-term projections, be replaced with a small subset of historic data on power plant characteristics. **This results in the elimination of over 50 forms previously required under CFM as shown in Appendix A. Now, only one form on generator or power plant characteristics will be required of generators.**

The Committee acknowledges that creating a power plant characteristics reporting requirement increases the number of entities reporting these data to the Energy Commission as compared to the old CFM process. This is, however, an inevitable consequence of industry restructuring in California. That process effectively eliminates the utility as an intermediary, and it is the Committee's opinion that utility-based reporting requirements should be reduced substantially. One benefit of this change is that California's reporting requirements will be more consistent with EIA reporting requirements. The EIA has always required individual facilities to submit reports to them.

## GENERATOR OUTPUT AND FUEL USE DATA

The Committee recommends that the Energy Commission collect generator output, fuel use, and historic fuel prices. We recommend that generator's report monthly data on a quarterly basis. This proposal includes a compliance option, however, that will significantly reduce the burden on the entity reporting.

The Committee's proposal calls for an increase in the number of entities reporting to the Energy Commission and a decrease in the level of effort for reporting entities over past data collection practices. **Also, the Committee is proposing the elimination and consolidation of a number of forms for the data collection historically done under QFER, significantly reducing the number of QFER forms the Energy Commission will collect in the future as shown in Appendix A.** The large effort currently required of utilities to provide aggregated purchases from many generators, both their own and those they have contracts with, can be eliminated. A reduced set of forms applicable to all generators, filed by the generator, will suffice under the Committee's proposal. Furthermore, this submission can, in most cases, be a photocopy of forms that must already be filed with EIA. Thus the effort required of generators for new direct reporting requirements to the Energy Commission is negligible.

The Committee has identified the EIA as a significant source for much of the data needed on generator output and fuel use. For more than 90 percent of this data the Energy Commission needs, EIA forms will be considered acceptable compliance options in many specific instances, further reducing burdens on market participants. EIA data will be sufficient for generators below 50 MW. For generators above 50 MW, EIA data will also be sufficient with the exception of one variable; information on fuel prices.

The Committee believes these substantial changes, described in further detail in Section IV, represent a new way of doing business that is more in line with a competitive market than our past methods of data collection.

## **Implementing the Principles**

Consistent with the recommendations regarding power plant characteristics, the Committee's proposal is guided by the principle of pursuing data-collection methods that are not overly burdensome and embody a least-cost approach. Additionally, the principle that "equivalent function defines data collection" formed the basis of our generation and fuel-use recommendation.

## **Generator Output and Fuel Use Reporting Requirements**

In this proposal, all generators, whether owned by a regulated utility or a private entity, are treated the same where they perform the same functions. The effect of this is that regulated utilities will report the detailed output data for their own facilities, but will no longer be required to report the output of generators with which they have purchase agreements. All privately-owned generators would report directly to the Energy Commission. This change results in a reduction in utility reporting requirements, but an increase in non-utility reporting requirements. However, reporting requirements for the industry as a whole are greatly reduced from previous practices. An important feature of this proposal is segmented, or graduated, reporting requirements based on size of facility. The smallest facilities (below 10 MW) would file nothing at all, while the largest facilities (50 MW or greater) would file monthly information on a quarterly basis.

## **CONFIDENTIALITY**

Some of the variables the Committee proposes to collect may be sensitive business information, while other variables are not. Specifically, those data that parties expressed concerns about are heat rate by thermal capacity block, forced outage rates, ramp rate, maintenance outage schedule, operation and maintenance costs, and fuel price. The Committee agrees that those data that meet the definition of "trade secret" should be fully protected from release.

In light of the previous actions of the Committee to revise confidentiality regulations to meet industry concerns, and the recent actions of EIA to revise its confidentiality provisions for various types of power plant-specific data, generators should have increasing confidence that once data is designated confidential it will remain so. Energy Commission procedures are being revised to ensure that the confidentiality protections enacted by our regulations are implemented.

**Table 1**  
**California Energy Commission Procedures**  
**For Designating Information Confidential**

	Generator Output	Fuel Use	Fuel Cost/Price
Before 8/3/98	By Request	By Request	By Request
After 8/3/98	Automatic Protection	Automatic Protection	Automatic Protection

**Table 1** shows that requests for confidential protection of data were handled on a case-by-case basis prior to 8/3/98. An individual submitter had to make a request for confidentiality. Although the decision to disclose such data was influenced by the submitter's request, disclosure was governed by a balancing of public benefit against private harm. After that date, the Energy Commission regulations provided automatic confidentiality protection for generator output and fuel use data. In providing for disclosure of aggregated data, the Energy Commission may require consultation with the submitter to identify suitable aggregation methods.

However, changes to procedures at the Federal Government level that were made subsequent to Energy Commission decisions greatly affected what can be considered confidential. These changes are shown in **Table 2**.

**Table 2**  
**Federal Energy Information Agency Procedures**  
**For Designating and Disclosing Confidential Information**

	Generator Output	Fuel Use	Fuel Cost/Price
Before 1/1/99	Automatic Protection	Automatic Protection	Not Collected
After 1/1/99	Disclosable	Disclosable	Not Collected

**Table 2** shows, as a result of changes at the EIA on 1/1/99, production and fuel use data is disclosable and cannot be held confidential. Public access to data on generator output and fuel use collected by EIA eliminates the Energy Commission's ability to designate such data confidential.

However, information on fuel cost and price are unaffected by the changes at the Federal level and current Energy Commission confidentiality regulations suggest non-utility data submissions will receive automatic confidential designation, as shown in **Table 3**. Energy Commission confidentiality regulations do not explicitly refer to fuel price or cost data, since they are not part of the existing QFER reporting requirements. The Committee's intent is to provide protections for cost/price data and will work to that end. Disclosure of fuel cost/price data may occur in aggregated form. This may require consultation with the submitter to identify suitable aggregation methods.

**Table 3**  
**Results of Combined Agency Procedures**  
**For Designating and Disclosing Information Confidential**

	<b>Generator Output</b>	<b>Fuel Use</b>	<b>Fuel Cost/Price</b>
After 1/1/99	Disclosable	Disclosable	Automatic Protection for Non-utility facility data. Aggregated disclosure to ensure confidentiality of individual facility data.

The Committee understands that the above assurances may not provide the level of confidence desired by all the parties in this proceeding. To create a higher level of confidence, we recommend that industry and staff work together to find ways to strengthen our internal protocols. Additionally, the Energy Commission could consider making further changes to its confidentiality regulations to include additional information in categories entitled to automatic confidentiality protection. The Committee may also consider pursuing legislative solutions, modeling the statutory language that applies to the Petroleum Industry Information Reporting Act (PIIRA) data.

## IV POWER PLANT CHARACTERISTICS RECOMMENDATIONS

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The Committee recommends that the Energy Commission continue to collect basic data on the power plant characteristics for generators that are located in California. However, to reduce reporting burdens on market participants, the Committee proposes to have staff develop a database on power plant characteristics that would be updated by power plant owners every two years. The proposed data are shown in **Table 4** and are organized into five general categories by size. Data reporting requirements for each capacity group are shown in **Appendix C**. The variables are plant identifiers, operating data, operation and maintenance costs, fuel price, and emission factors. In this section, the specific data requirements for each capacity group are described, including who must report, and compliance options to facilitate reporting.

Most of these data are reported to the EIA, the PX and/or the ISO and are readily available to the generators and UDCs who would be required to report to the Energy Commission. In many cases, however, data are reported under confidentiality agreements. The Committee recommends that these data be given confidential protection at the Energy Commission as well, which may require revisions to confidentiality regulations or other measures. The confidential nature of certain data is a major concern of many parties to this proceeding. This concern is addressed in detail in Part III of this report.

In particular, parties expressed concerns about facility-specific operating, operation and maintenance cost, and fuel price data. These concerns prompted the Committee to recommend developing generic estimates for many of the data. However, the Committee proposes power plant-specific reporting requirements for these variables for the largest category of power plants, specifically those 50 MW and greater. For smaller power plants (those from 1-10 MW and 10-50 MW), the Committee believes that staff and industry can develop suitable estimates for various specific power generation technologies. For the smallest two categories of power plants, we believe staff can identify suitable generic assumptions based on manufacturer data and relieve any burdens on the owners of such facilities to report most engineering and cost variables.

We believe that this graduated set of reporting requirements balances the incremental benefits to the Energy Commission of having sufficiently precise data to enable us to meet our assessment obligations with the reporting requirement burden on power plant owners/operators. The Committee proposed a database reviewing process to facilitate compliance with power plant characteristics reporting requirements outlined in **Appendix D**.

A feature of the current self-generator reporting requirements are retained and expanded. At present, utilities are required to report certain data about every power plant interconnected to the distribution system. All facilities greater than 10 MW have historically reported these data using CFM forms. The Committee recommendation is to expand this requirement to the entire population of generators irrespective of size. This recommendation, however, further aligns the Energy Commission with the EIA's approach. EIA reporting requirements already place this

obligation on the utilities. Therefore, the Committee recommends that the staff use this database to identify generation facilities, and in the case of very small ones, to substitute for direct reporting.

## **CAPACITY GROUP 1: POWER PLANTS WITH A CAPACITY OF LESS THAN 1 MW**

No direct reporting requirements. The Energy Commission's need for routinely reported information on these facilities can be satisfied by an expansion of the current obligation of utilities to provide data on interconnected generators. Currently utilities report on facilities 10 MW or larger. The Committee's proposal would require reporting on all interconnected facilities regardless of size.

## **CAPACITY GROUP 2: POWER PLANTS WITH A CAPACITY GREATER THAN 1 MW AND LESS THAN 10 MW**

Relevant portions of the staff's database will be sent to power plant owners and any changes to these data should be reported during the biennial database update process. For this capacity group, these data are all the *plant identifiers* and *operating data* items 2a, b, c, and d from **Table 4**.

**Table 4**  
**List of Power Plant Characteristics Variables**

<b>1. Power Plant Identifiers</b>	
a.	Name
b.	Location
c.	Ownership
d.	Name plate capacity
e.	Date installed
f.	Estimated retirement date
g.	Unit type
<b>2. Plant Operating Data</b>	
a.	Type of fuel used
b.	Dependable capacity
c.	Thermal capacity
d.	Average heat rate by block
e.	Equivalent forced outage rate
f.	Maintenance schedule or MOR
g.	Ramp rate
h.	Cold start-up time
i.	Warm start-up time
j.	Warm start-up energy
k.	Minimum down time
l.	Minimum up time
m.	Hydro unit data
n.	Pumped storage unit data
o.	Contract type (QF, RMR, etc.)

**Table 4**  
**List of Power Plant Characteristics Variables**  
**Continued...**

<b>3. Operation and Maintenance (O&amp;M) Cost</b>	
a.	Variable O&M
b.	Fixed O&M
<b>4. Fuel Price Data</b>	
a.	Fixed and variable prices
b.	Dispatch price
<b>5. Emission Factors (refer to Table 7 for specific emissions)</b>	

### **CAPACITY GROUP 3: POWER PLANTS WITH A CAPACITY GREATER THAN 10 MW AND LESS THAN 50 MW**

Relevant portions of the staff's database will be sent to power plant owners and any changes to these data should be reported during the biennial database update process. In cooperation with industry, staff will develop estimates for power plant operating characteristics (**Table 4: 2a, b, c, d, e, f, g, h, i, j, k, l, m, and n**), and operation and maintenance cost (**Table 4: 3a and b**) needed for analyses of facilities in this size range. Fuel price data estimates will be developed using information provided by generators on new forms, such as the illustrative samples shown in **Appendix E**. Overall reporting requirements are summarized in **Table 5**.

All power plants greater than 10 MW will be required to submit emission factors to the Energy Commission in parallel (frequency, filed by a representative on behalf of the owner, etc.) with other reporting requirements for this size facility. The Committee recommends two alternative methods of compliance:

1. Power plants may report a facility-specific emission factor based on source test data, analysis of Continuous Emissions Monitoring and other related data, or other methodologies acceptable to the local Air Quality Management District (AQMD); or
2. Energy Commission staff will develop generic emission factors for each technology and fuel type combination in a workshop process, which will be an acceptable compliance option for any power plant in this size range.

**Table 5**  
**Reporting Requirements for Generators 10 - 50 MW**

<b>Variable</b>	<b>Who Reports</b>	<b>Where Else Data Is Reported</b>	<b>How to Report to the Energy Commission</b>
Plant Identifiers	Generators	EIA	Biennial Update of CEC Form
Operating Data	Generators	EIA	Biennial Update of CEC Form
O&M Cost	Generators	Estimates	No reporting necessary
Fuel Price Data	Generators	EIA	Biennial Reporting on Simplified CEC Forms
Emission Factors	Generators	Estimates or AQMDs	No reporting necessary or Biennial Update of CEC Form

## CAPACITY GROUP 4: POWER PLANTS WITH A CAPACITY GREATER THAN 50 MW

Relevant portions of the staff's database will be sent to power plant owners and any changes to these data should be reported during the biennial database update process. For power plants 50 MW or greater, the Committee proposes to collect plant-specific data as described and shown in **Table 6**.

**Table 6**  
**Reporting Requirements for Generators >50 MW**

Variable	Who Reports	Where Else Data Is Reported	How to Report to the Energy Commission
Plant Identifiers	Generators	EIA, PX, ISO	Biennial Update of CEC Form
Operating Data	Generators	EIA, PX, ISO	Biennial Update of CEC Form
O&M Cost	Generators	EIA, PX, ISO	Biennial Update of CEC Form
Fuel Price Data	Generators	EIA	Biennial Reporting on Simplified CEC Forms
Emission Factors	Generators	AQMDs	Biennial Update of CEC Form

### Operating Characteristics

The Committee recommends that power plant owners report all the power plant-specific operating data listed in **Table 4**. These variables are needed for modeling the interconnected system of power plants serving California. Most system simulation models require such data. In response to Staff's original identification of this list, parties objected to providing this data to the Energy Commission for two reasons:

- ♦ Several of these variables were key business secrets that, if disclosed, would harm the ability of the generator to compete in the competitive market that exists as a result of AB 1890; and
- ♦ The burden of reporting these variables was excessive.

The Committee has attempted to balance the concerns behind these objections with the clear requirement for such data to operate the system simulation models that the Energy Commission utilizes to provide answers to various analytic questions that arise in regulatory or policy assessment arenas. Therefore, we are proposing a graduated set of requirements linked to the size of the facility. The larger the size category the greater the amount, and power plant-specificity, of the data required.

Parties to the proceeding identified six variables as being the most commercially sensitive data. Within the operating-data category the variables are heat rate by block, equivalent forced outage rate, maintenance schedule and/or outage rate, and ramp rate. In addition, variable and fixed O&M components were identified as highly sensitive. Generators have these data

and report them to the ISO and the PX. Therefore, the Committee does not consider the issue to be about burdensome reporting requirements, but rather about confidentiality.

In response to this concern, the Committee investigated using estimates for these variables to avoid the dispute over disclosure altogether. We asked Energy Commission staff to use its system simulation model to test the feasibility of using estimates for these sensitive variables. Staff did this by selecting block heat rates as its test variable and developed two sensitivity case runs of the model.<sup>4</sup> Heat rates were varied up and down by ten percent and the results were compared with the base-case results.

The test results showed that, for general statewide system assessments, using estimates is sufficient. There were relatively little differential impacts among power plants resulting from the group changes in heat rates. However, for individual power plants, using estimates has a major affect on the results. A ten percent increase or decrease in heat rate can mean greater than 60 percent change in the operation of that plant compared to the base-case. This change in operation greatly effects the results of regional or zonal analyses.

This test led the Committee to conclude that if the Energy Commission was only concerned with statewide assessments, estimated values would be adequate. However, to accurately analyze regional, zonal or location-specific impacts, facility-specific data is needed. Since the Energy Commission performs these more detailed types of analyses, facility-specific values are necessary, but only for power plants greater than 50 MW.

The Committee believes that such studies are part of the energy system assessment capabilities that we should possess and apply to specific issues that arise in policy assessment, energy facilities licensing proceedings, and in cooperative endeavors with the ISO, the PX and other agencies. Examples of these analyses include: assessing air quality impacts and benefits; investigating the effectiveness of the targeted use of energy efficiency to mitigate locational air quality problems; and assessing the impacts of distributed generation targeted to defer regional distribution system or transmission system upgrades.

## **Fuel Supply and Costs**

The Committee recommends the collection of historical fuel prices as described in Section V. The recommendation to report historical data is in response to industry concerns regarding the confidentiality of forecasted data. In addition, these data will be reported only for facilities greater than 50 MW. These data are needed for the Energy Commission staff to forecast the demand for natural gas.

Beyond this historic fuel price data, the Committee recommends the collection of additional information to allow staff to estimate future fuel prices and eliminate the reporting of forecasted fuel prices by utilities. The specific information required would be information on which generic prices are used to make dispatch decisions for the facility and the source of its natural gas supply, and would be reported using new forms that staff would develop. Illustrative samples of forms which could be relied on to estimate fuel prices are shown in **Appendix E** and provide,

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<sup>4</sup> Memo from Joel B. Klein, "Data Gathering for Power Plant Characteristics", October 16, 1998 and Memo from Richard Grix, "Modeling the Effects of Changes in Heat Rates on Generation", October 15, 1998.

in the Committee's opinion, a very simplified reporting mechanism. The facility operator would simply check relevant boxes and fill in appropriate percentages.

For some near-term analyses and locational-impact assessments, a separate natural gas price forecast for each generation location would be needed. In order to be able to prepare an individual price forecast for each generation site being studied, it is necessary to have an estimate of the supply mix coming from each supply source. A simple table could be devised where the facility operator would check off the range (in percent of supply from each source) expected to take place in the next five years. The Energy Commission would use its supply price forecast (weighted by the facility operators' supply factors) and transport and distribution costs to forecast the individual prices.

## Emission Factors Data

Emission factors are needed to allow the Energy Commission to analyze the air pollutant emissions from both the power plants in the system and proposed additions. These data support staff analyses to assess implications of Air Quality Management District (AQMD) regulations and attainment planning strategies. In addition, the Energy Commission has an extensive history of working with California Air Resources Board (CARB) to do electric vehicle impact assessments that rely on emission factor data and system simulations. Data on emissions should be developed in cooperation with the regional AQMDs and CARB. Specific data on proposed facilities will be obtained from project applicants when they file Applications for Certification.

The Committee recommends the following reporting requirements for emission factor data for power plants of 50 MW or greater (**Table 7**).

**Table 7**  
**Power Plant Emission Factors for Facilities >50 MW Capacity**

Pollutant	Units	Time Interval	Compliance Options in Lieu of Using Annual Source Test Data
NOx	#/mbtu	EF time intervals must match the intervals for blocked heat rate data (or correspond to polynomial equations or other functional forms used for heat rate curves)	CARB-certified methodology for estimation of heat rate-linked emission factors using CEM data and other necessary data
SOx	#/mbtu	Annual average	1. For natural gas facilities: engineering computations based on sulfur content of fuel 2. For oil or coal fired facilities: EPA Acid Rain filings
ROG	#/mbtu	Annual average	AP-42
PM10/2.5	#/mbtu	Annual average	AP-42
CO	#/mbtu	EF time intervals must match the intervals for blocked heat rate data (or correspond to polynomial equations or other functional forms used for heat rate curves)	CARB-certified methodology for estimation of heat rate-linked emission factors using CEM data and other necessary data
CO <sub>2</sub>	#/mbtu	Annual average	Engineering computations based on fuel use
Air Toxics	#/mbtu	Annual average	Emission factors and/or source testing used to develop Health & Safety Code quadrennial air toxic inventory

## **V GENERATION AND FUEL USE DATA RECOMMENDATIONS**

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The Committee's specific recommendations about historic generator output, fuel use, and fuel cost reporting requirements are described below. Much of the generator output and fuel-use data are reported to the Federal Government on various EIA forms. An overview of the reporting requirements are shown in **Table 8**. Specific data requirements for each capacity group, and the appropriate EIA forms, are pointed out in **Appendix F**. Where there are differences between EIA reporting requirements and the Committee-proposed requirements, the differences are discussed.

Included is a comparison of these requirements to those established by the EIA. The EIA has extensive generator reporting requirements. In the past there have been some differences between Energy Commission and EIA requirements. As a result of the changes proposed by the Committee, and changes now in progress by EIA, there will be few differences. The Committee notes that in providing a compliance option that entails the filing of EIA forms in lieu of Energy Commission forms, the frequency of filing must at least match the Committee's proposed requirements.

### **CAPACITY GROUP 1: POWER PLANTS WITH A CAPACITY OF LESS THAN 1 MW**

The Committee does not recommend a change in reporting requirements for this group. No power plant with a capacity of less than 1 MW will be required to report information directly to the Energy Commission. The only source for information on generation by this capacity group will be QFER Form 2A (Monthly Utility Purchases From Non-Utilities). This form is filed quarterly by those utilities in the State which purchase generation from this capacity group.

### **CAPACITY GROUP 2: POWER PLANTS WITH A CAPACITY EQUAL TO OR GREATER THAN 1 MW AND LESS THAN 10 MW**

The Committee recommends that all power plants with a capacity equal to or greater than 1 MW, and less than 10 MW, file the following information annually on a unit by unit basis:

- ♦ Annual generation
- ♦ Capacity at system annual peak demand
- ♦ Annual sales to others
- ♦ Annual fuel consumption

The Committee recommendation calls for a change in the current filing status of this group. Currently, the Energy Commission does not require non-utility power plants in this capacity group to file any information directly. Non-utility generators do, however, report to the EIA. This proposal includes provisions for filing copies of the appropriate EIA forms as a compliance option for both utility and non-utility generators. This option results in a minimal

increase in reporting burden for non-utility generators and reduces the reporting burden for utilities.

QFER Form 11 (Non-Utility Use Of Generated Electricity) and QFER Form 12 (Non-Utility Use Of Fossil Fuels) could be combined and modified to include an annual data column and be renamed to apply to both utility and non-utility power plants. This capacity group, regardless of ownership, would be required to file this modified form annually. As a compliance option, the Committee recommends that the Energy Commission accept EIA Form 759 (A Monthly Power Plant Report Filed Annually For Generation Of This Size) or EIA 860B (Annual Electric Generator Report - Non-Utility) for purposes of meeting the reporting requirement.

**Table 8**  
**Overview Of Proposed Generation And Fuel Use Data Reporting Requirements**

<b>Generator Size</b>	<b>In-State Facilities</b>	<b>Reporting Requirements</b>	<b>Electricity Production</b>	<b>Fuel Use and Cost</b>
<b>&lt; 1 MW</b>	425	None	None	None
<b>1 – 10 MW</b>	275	Data elements	Annual net generation, capacity at peak demand, and sales to others (by SIC Code for a subset)	Annual fuel use by fuel type
		Data unit	By unit	By unit
		Frequency	Annual	Annual
		Change in reporting burden	New State requirement for self-generators, most QFs, and utility-owned facilities, but only a minor incremental burden over existing Federal requirement	New State requirement for self-generators, most QFs, and utility-owned facilities, but only a minor incremental burden over existing Federal requirement
<b>10 – 50 MW</b>	275	Data elements	Monthly generation, capacity at peak demand, and sales to others (by SIC Code for a subset)	Monthly fuel use by fuel type
		Data unit	By unit	By unit
		Frequency	Quarterly	Quarterly
		Change in reporting burden	New State requirement for pure QFs and utility-owned facilities, but only a minor incremental burden over existing Federal requirement	New State requirement for pure QFs and utility-owned facilities, but only a minor incremental burden over existing Federal requirement
<b>&gt;50 MW</b>	209	Data elements	Monthly generation, capacity at peak demand, and sales to others (by SIC Code for a subset)	Monthly fuel use by fuel type Monthly fuel cost by fuel type
		Data unit	By unit	By unit
		Frequency	Quarterly	Quarterly
		Change in reporting burden	New State requirement for pure QF or individual utility facilities, but only a minor incremental burden over existing Federal requirement	New State requirement for pure QF or individual utility facilities. Fuel use is only a minor incremental burden over existing Federal requirement, but fuel cost is an increase for non-utility generators.

## **CAPACITY GROUP 3: POWER PLANTS WITH A CAPACITY EQUAL TO OR GREATER THAN 10 MEGAWATTS AND LESS THAN 50 MW**

The Committee recommends that all power plants with a capacity equal to or greater than 10 MW but less than 50 MW be required to file quarterly on a unit by unit basis:

- ♦ Monthly generation
- ♦ Capacity at system monthly peak demand
- ♦ Monthly sales to others
- ♦ Monthly fuel consumption

The Committee recommendation calls for a change in the current filing status of this group. Currently, only those non-utility generators which burn fossil fuels, or do not sell all of their output to an electric utility, presently file QFER Form 11 with the Energy Commission (see **Appendix A**). This change will result in an increase in the number of non-utility generators filing with the Energy Commission. This proposal also includes provisions for filing copies of the appropriate EIA forms as a compliance option for both utility and non-utility generators. This option results in a minimal increase in reporting burden for non-utility generators and reduces the reporting burden for utilities.

For utility-owned generation, the minimal increase in the reporting burden is a disaggregation of the information already filed quarterly. If this recommendation is followed for utility generators in Capacity Groups 2, 3 and 4; the need for QFER Form 1 (Electric Utility Monthly Generation Resources) and QFER Form 3 (Electric Utility Monthly Use Of Generation Fuel) is eliminated.

QFER Form 11 and QFER Form 12 can be combined and be renamed to apply to both utility and non-utility power plants. This power plant group, regardless of ownership, would be required to file this modified QFER form quarterly. As a compliance option, the Committee recommends that the Energy Commission accept EIA Form 759 (a monthly power plant report filed annually for generation of this size) or EIA Form 860B (Annual Electric Generator Report – Non-Utility) for purposes of meeting the reporting requirement. In providing this option, the frequency of filing must at least match Energy Commission's proposed requirements. For EIA Form 759, the three monthly submissions could be sent to the Energy Commission each quarter, or they could be sent individually each month when sent to EIA.<sup>5</sup> However, using EIA Form 860B as a format for Energy Commission reporting does not reduce the need for quarterly filings.

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<sup>5</sup> On EIA Form 759 federal regulation provide that data reported on "stocks end of the month" is confidential. For data treated as confidential by EIA, the Committee notes these data could be masked (if paper filings) or deleted (if electronic) when submitted to the Energy Commission.

## **CAPACITY GROUP 4: POWER PLANTS WITH A CAPACITY GREATER THAN 50 MW**

The Committee recommends that all power plants with a capacity equal to or greater than 50 MW be required to file the following information quarterly, on a unit by unit basis:

- ♦ Monthly generation
- ♦ Capacity at system monthly peak demand
- ♦ Monthly sales to others
- ♦ Monthly fuel consumption
- ♦ Monthly fuel cost

The Committee recommendation calls for a change in the current filing status of this group. This proposal also includes provisions for filing copies of the appropriate EIA forms as a compliance option for both utility and non-utility generators. This option results in a minimal increase in reporting burden for non-utility generators and reduces the reporting burden for utility generators.

QFER Form 11 and QFER Form 12 could be combined and be renamed to apply to both utility and non-utility power plants. In addition, a row for monthly fuel costs would be added. This power plant group, regardless of ownership, would be required to file this modified QFER form quarterly.

For non-utility power plants, EIA Form 900 (filed monthly) in combination with EIA Form 860B (filed annually) would be accepted as a compliance option for purposes of meeting the filing requirement for the Form 11 part of the modified form.<sup>6</sup>

For non-utility power plants, EIA Form 860B would be accepted as a compliance option for purposes of meeting the filing requirement for the Form 12 part of the modified form.<sup>7</sup> Monthly fuel cost information for non-utility power plants must be filed on the modified QFER form because no other form is used to collect information on non-utility generator fuel costs.

For utility power plants, EIA Form 759 (a Monthly Power Plant Report) and EIA Form 767 (Steam-Electric Plant Operation and Design Report -- filed annually) would be accepted as a compliance option for purposes of meeting the filing requirement for all parts of the modified QFER form except the monthly cost of fuel which can be satisfied by filing FERC Form 423.

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<sup>6</sup> Monthly generation and capacity at monthly peak.

<sup>7</sup> Monthly fuel consumption.

## Generator Submission of SIC Sales Data

The proposed generator production and fuel use reporting requirements include aggregate sales by four-digit Standard Industrial Classification (SIC) code. SIC classification and reporting is required only for the following private sales cases:

- ♦ Through-the-fence sales to industrial or commercial facilities sharing a common property line with the generating facility,
- ♦ Sales to end-users within an islanded, non-interconnected distribution system (such as a distributed generation industrial park), and
- ♦ Self-consumed generator output would be classified by SIC Code of the primary business activity of the facility where the generator is located.

Sales to wholesale entities such as the ISO, the PX, or a municipal utility need not be classified by SIC Code, because no retail transaction takes place. Bilateral contract sales to direct access end-users need not be reported by end-user SIC Code because such sales will be reported by the retailer and/or the distribution utility.

Since 1991, each self-generation facility with at least 10 MW of capacity has filed data on generator output, onsite electricity consumption, net peak generator output, electricity sold to private parties and fuel use by SIC Code. However, facilities that have the same SIC Code and were located in the same electric and gas utility service areas could aggregate their filings. In addition, electric utilities provided estimates of onsite electricity consumption by SIC Code for self-generation facilities less than 10 MW.

In its September 1998 report, staff identified the level of self-generated electricity consumption for selected years from 1980 through 1996. **Table 9** shows that self-generation has increased to 19.4 percent of total industrial electricity consumption over this period. For the Energy Commission to have a basic understanding of the important link between electricity consumption and the broad categories of economic activity, it is necessary to have generator data by SIC Code for the industrial facilities.

**Table 10** illustrates the importance of self-generation in certain industries, especially those with high thermal requirements and cogeneration is the technology of choice. The Energy Commission would not be able to perform industry-specific assessments without this information on self-generation and private sales. Such assessments include:

- ♦ Demand forecasts;
- ♦ Energy efficiency opportunities linked to specific process technologies that are industry-specific;
- ♦ RD&D opportunities that are industry-specific.

In addition, the Energy Commission currently supports EPRI research targets in 1998/1999 that include several industry-specific activities. SIC Code data is necessary to quantify the impact on the industry if the technologies being investigated were successfully deployed.

Currently, there are approximately 100 entities reporting to the Energy Commission as self-generators (10 MW or larger). Most industrial facilities already know their own SIC Code classification since it is a common way of identifying its own activities in the context of business statistics identifying the size of the overall industry and the competition. Few, if any, generators are currently reporting private, through-the-fence sales where they would have to classify an operation other than their own. In some instances, staff has assisted gas marketers in identifying the SIC Code of their end-use customers, since there is an already existing requirement that they report sales by SIC Code. The Energy Commission can provide such assistance in identifying SIC Codes in the future.

**Table 9**  
**California Total Self-Generation of Electricity Consumption**  
**(percent)**

<b>Year</b>	<b>Residential</b>	<b>Commercial</b>	<b>Industrial</b>
1980	0.0%	0.0%	2.1%
1984	0.0%	0.5%	4.7%
1988	0.0%	1.6%	12.6%
1992	0.0%	1.8%	15.0%
1996	0.0%	2.0%	19.4%

**Table 10**  
**California Electric Consumption in 1996**  
**For Specific SIC Codes**  
**(million kWh)**

<b>SIC</b>	<b>Industry Description</b>	<b>Self-Gen. Consumption</b>	<b>Utility Sales</b>	<b>Total Consumption</b>	<b>% of Self-Gen.</b>
261	Pulp Mill	168	55	223	75.3%
263	Paperboard Mill	390	129	519	75.1%
291	Petroleum Refining	5,102	2,420	7,522	67.8%
206	Sugar	164	141	306	53.7%
13	Oil/Gas Extraction	1,583	2,636	4,219	37.5%
28	Chemical	1,160	2,467	3,627	32.0%
24	Lumber	403	966	1,369	29.4%

## APPENDIX A-1

### LIST OF FORMS ELIMINATED FOR THE SUPPLY PORTION OF THE 1996 ELECTRICITY REPORT (ER 96)

- R-1 Summary of Loads and Resources
- R-2 Summary of Energy Requirements and Resources - Recorded
- R-3 Existing, Committed and Planned Utility-Owned Resources
  - R-3A Thermal Resources
  - R-3B Hydro Resources
  - R-3C Pumped Storage
  - R-3D Monthly & Annual Hydro Variation Data for Production Cost & Reliability Modeling
- R-4 Qualifying Facilities, Self-Generators & other Non-Utility Generators
  - R-4A Capacity
    - R-4A1 Dependable Firm Capacity
    - R-4A2 Undependable Firm Capacity
    - R-4A3 Dependable As-Available Capacity
    - R-4A4 Undependable As-Available Capacity
    - R-4A5 Total Dependable Capacity
  - R-4B Power Plant Performance Factors for Qualifying Facilities/Self Generation
  - R-4C Energy
    - R-4C1 Energy from Dependable Firm Capacity
    - R-4C2 Energy from Undependable Firm Capacity
    - R-4C3 Energy from Dependable As-Available Capacity
    - R-4C4 Energy from Undependable As-Available Capacity
  - R-4D: Prices for Energy
  - R-4E Individual Project Data Base
  - R-4F On-Line Capacity
- R-5 Inter-Utility Transactions – Existing and Committed
  - R-5A Exports
  - R-5B Imports
- R-6 No Longer Used
- R-7 Environmental Pollutants, Fuel Storage, Land & Water Use
- R-8 Historical & Projected Operations Data (Power Plant Performance Factors)
  - R-8A Historical Outage Data
  - R-8B Performance Factors Used in Resource Case Analysis
  - R-8C Performance Factors for Combustion Turbines
- R-9 Off-System Losses for Remote Resources
- R-10 Fuel Consumption & Resources
  - R-10A Historical and Projected Fuel Consumption
  - R-10B Heat Content and Cost of Fuel Resources
- R-11 Resource Options & Technology Characterizations
- R-12 Construction Outlays for Individual Utility Electric Plant Additions
- R-13 Financial Variables
  - R-13A Financial Variables: Life of plant by Asset Type
  - R-13B Fixed Charged Rates
- R-14 Inflation, Discount, and Escalation Rates

## APPENDIX A-2

### LIST OF FORMS ELIMINATED FOR THE SUPPLY PORTION OF THE 1996 ELECTRICITY REPORT (ER 96) FOR “NON-REGULATED” UTILITIES

- R-3 Existing, Committed and Planned Utility-Owned Resources
  - R-3A Thermal Resources
  - R-3B Hydro Resources
  - R-3D Monthly & Annual Hydro Variation Data for Production Cost & Reliability Modeling
- R-4 Qualifying Facilities, Self-Generators & other Non-Utility Generators
  - R-4A Capacity
    - R-4A1 Dependable Firm Capacity
    - R-4A2 Undependable Firm Capacity
    - R-4A3 Dependable As-Available Capacity
    - R-4A4 Undependable As-Available Capacity
    - R-4A5 Total Dependable Capacity
  - R-4B Power Plant Performance Factors for Qualifying Facilities/Self Generation
  - R-4C Energy
    - R-4C1 Energy from Dependable Firm Capacity
    - R-4C2 Energy from Undependable Firm Capacity
    - R-4C3 Energy from Dependable As-Available Capacity
    - R-4C4 Energy from Undependable As-Available Capacity
  - R-4D: Prices for Energy
- R-7 Environmental Pollutants, Fuel Storage, Land & Water Use
- R-8 Historical & Projected Operations Data (Power Plant Performance Factors)
  - R-8A Historical Outage Data
  - R-8B Performance Factors Used in Resource Case Analysis
  - R-8C Performance Factory for Combustion Turbines
- R-11 Resource Options & Technology Characterizations

## APPENDIX A-3

### REVISIONS TO FORMS

QUARTERLY FUEL AND ENERGY REPORT (QFER) FORMS		FORM STATUS
<b>Electric Utility and Gas Utility Forms</b>		
Form 1	Electric Utility Monthly Generation Resources	ELIMINATED
Form 2	Electric Utility Monthly Inter-Utility Transactions	??
Form 2A	Electric Utility Monthly Purchases from Non-Utility	ELIMINATED
Form 3	Electric Utility Monthly Use of Generation Fuel	ELIMINATED
Form 4	Electric/Gas Utility Monthly Sales/Deliveries by SIC Code	*
Form 4A	Electric/Gas Utility Monthly Resale and Annual Projection	*
Form 4B	Electric/Gas Utility Corrections to Form 4 Data	*
Form 5	Electric/Gas Utility Annual Sales by SIC Code and County	*
Form 6	Gas Utility Monthly Receipts (with annual costs)	*
Form 6A	Gas Utility Monthly Send-out (with annual revenues)	*
Form 7	Gas Utility Annual Revenue by SIC Code and Rate Category	*
Form 13	Electric Utility Estimate of Monthly Self Generation	ELIMINATED
Form 14	Gas Utility Estimate of Monthly Self-Generation Gas Use	??
Form 15	Electric Utility Annual List of Self-Generating Facilities	REVISED
Form 16	Electric/Gas Utility Biennial SIC Code Accuracy Report	*
<b>Gas Producer, Gas Processor, and Gas Marketer Forms</b>		
Form 8	Gas Producer Report	*
Form 9	Gas Processor Annual Report	*
Form 10A	Gas Producer/Marketer Annual Report	*
<b>Non-Utility Electric Generator Forms</b>		
Form 11	Non Utility Monthly End-use of Generated Electricity	Combined
Form 12	Non Utility Monthly Use of Fossil Fuels for Generation	Combined

\*= Consumer Data reporting requirements are not addressed by the scope of this report. They will be addressed in subsequent rulemaking efforts.

## APPENDIX B

### ENERGY MARKET AD HOC INFORMATION PROCEEDING WORKSHOPS, PAPERS AND COMMENTS RELATED TO GENERATION DATA

Dec. 1, 1997	Staff Report on Supply Data
Dec. 15, 1997	Committee Workshop of Supply Data (cancelled at parties request)
Feb. 1998	Deadline for Parties Comments on Generation & Consumer Data
June 25, 1998	Draft Final Scoping Report
July 6, 1998	Comments on Report from MRW & Associates rep: AEP, IEP, Coral Energy, Green Mountain Energy, New Energy Ventures
July 9, 1998	Workshop
July 17, 1998	IEP/Co-Gen Council's Letter to Commissioners
July 28, 1998	Final Committee Scoping Report
July 30, 1998	Scoping "Order" signed
Aug. 18, 1998	Staff Paper: Power Plant Characteristics
Sept. 2, 1998	Workshop and Presentation
Sept. 2, 1998	Comments from CA Biomass Energy Alliance, and Arter & Hadden rep: Dynergy Inc. and Reliant Energy (formerly Houston Industries)
Sept. 4, 1998	Staff Paper: Power Plant Fuel Cost Air Pollutant Emission and O&M Cost Characteristic
Sept. 17, 1998	Workshop with Presentations by Staff and IEP (and Joint Representatives) on QFs, Public & Private Utilities, Merchant Plant Developers, Divested Plant Purchases, Customers and others
Sept. 18, 1998	Joint SB 1305 & 97-DC&CR-1 Workshop. (Regional Tracking) Two Presentations: Phil Carver from Oregon Office of Energy and Staff.
Sept. 29, 1998	Workshop and Presentation
Oct. 13, 1998	Workshop and Presentation/Staff Comments re: 9-17-98 Workshop
Oct. 22, 1998	Staff Paper: Power Plant Historic Production Data
Nov. 16, 1998	Notice Modifying the Schedule for the Second Phase of the Data Collection Rulemaking
Dec. 4, 1998	Notice of Extension of Deadline for Filing Comments re: Staff Papers
Dec. 11, 1998	Edison's Comments on Power Plant Production Data
Dec. 15, 1998	SEMPRA Comments on Power Plant Production Data
Feb. 2, 1999	Comments from Enron Corp., Green Mountain Energy Resource, New Energy Ventures
Feb. 26, 1999	Edison's Comments to (Feb., 2, 1999) Comments from Enron & Company
Mar. 17, 1999	Staff Comments to Committee on Getting Heat Rate Data from Generators

# APPENDIX C

## TABLE C-1

### PROPOSED REPORTING REQUIREMENTS FOR POWER PLANT CHARACTERISTICS

Power Plant Characteristics	Power Plant Size/Type	Proposed Reporting Requirement	EIA or Other Reporting Requirements	Rationale for Incremental Requirements
<b>1. Type Of Fuel Used</b>	<10 MW, all types	Distribution utility files	None	None
	10-50 MW, all types	Facility-specific value	EIA 860B requires fuel use and heat content for non-utility facilities	None
	>50 MW, utility	Facility-specific value	EIA 412 requires public utilities to file power plant-specific values annually EIA 767 requires all steam generator facilities to report primary fuels	None
	>50 MW, non-utility	Facility-specific value	EIA 860B requires fuel use and heat content for non-utility facilities	None
<b>2. Dependabl e Capacity</b>	<10 MW, all types	Distribution utility files its interconnection database	EIA 860B requires nameplate capacity for non-utility facilities	None
	10-50 MW, all types	Facility-specific value	EIA 860A requires summer and winter capacity  EIA 860B requires nameplate capacity for non-utility facilities  EIA 412 requires nameplate capacity for publicly-owned utility facilities  EIA 767 requires all steam generator facilities utility owned to report primary fuels (same as above)	Dependable capacity is different from nameplate capacity by taking into account site-specific cooling conditions for thermal facilities, resource dependability issues for renewable technologies, and other operating realities well-known to the operator of the facility
	>50 MW, all types	Facility-specific value	(same as above)	(same as above)
<b>3. Thermal Capacity</b>	<10 MW, all types	Distribution utility files	Implicit in nameplate and fuel reporting requirement	None
	10-50 MW all types	Facility-specific value	Implicit in nameplate and fuel reporting requirements	None
	>50 MW, all types	Facility-specific value	Implicit in nameplate and fuel reporting requirement	None

Power Plant Characteristics	Power Plant Size/Type	Proposed Reporting Requirement	EIA or Other Reporting Requirements	Rationale for Incremental Requirements
<b>4. Block Heat Rate</b>	<10 MW, all types 10-50 MW, all types	None Facility permitted to use a generic value by technology	None None	None A generic estimate developed with affected facilities is sufficient for modeling purposes
	>50 MW, utility	Facility-specific block heat rate	EIA 860A requires full load heat rate on all thermal facilities EIA 767 requires full load and half load heat rates for all thermal facilities >100 MW PX MS requirements include heat rate curves	A full description of heat rates under various loading conditions is an important determinant to plant operations, which is crucial for power plant emissions and locational analyses
	>50 MW, non-utility	Facility-specific block heat rate	PX MS requirements include heat rate curves	A full description of heat rates under various loading conditions is an important determinant to plant operations, which is crucial for power plant emissions and locational analyses
<b>5. Equivalent Forced Outage Rate (EFOR)</b>	<10 MW, all types >10-50 MW, all types	None Facility permitted to use a generic value by technology	None PX MS requirements include EFOR rates	None A generic estimate developed with affected facilities is sufficient for modeling purposes
	>50 MW, all types	Facility-specific expected equivalent forced outage rate	PX MS requirements include EFOR rates	A full description of expected EFOR is an important determinant to plant operations which is crucial for power plant emissions and locational analyses
<b>6. Ramp Rate</b>	<10 MW, all types	None	ISO Participating Generator Agreement (PGA) seems to require some data	None
	>10-50 MW, all types	Facility permitted to use a generic value by technology	ISO PGA currently requires ramp rate for all facilities scheduling with the ISO, and is discussing distinguishing between AGC and manual ramp rates	A generic estimate developed with affected facilities is sufficient for modeling purposes
	>50 MW, all types	Facility-specific ramp rate	ISO PGA currently requires ramp rate for all facilities scheduling with the ISO, and is discussing distinguishing between AGC and manual ramp rates.	A full description of ramp rates is an important determinant to plant operations which is crucial for power plant emissions and locational analyses

Power Plant Characteristics	Power Plant Size/Type	Proposed Reporting Requirement	EIA or Other Reporting Requirements	Rationale for Incremental Requirements
<b>7 Maintenance Schedule Or Maintenance Outage Rate</b>	<10 MW, all types	None	None	None
	10-50 MW, all types	Facility permitted to use a generic value by technology	PX MS requirements include maintenance values	A generic estimate developed with affected facilities is sufficient for modeling purposes
	>50 MW, all types	Facility-specific maintenance schedule	PX MS requirements include maintenance values	A full description of maintenance schedule is an important determinant to plant operations, which is crucial for power plant emissions and locational analyses. The ISO does not need this information because the bidding process has very short lead time, but reliability assessments require plant down time
<b>8. Cold Startup Time &amp; Energy</b>	<10 MW, all types	None	ISO Participating Generator Agreement (PGA) seems to require some data	
	10-50 MW, all types	Facility permitted to use a generic value by technology	ISO PGA currently requires startup lead times for all facilities scheduling with the ISO	No incremental requirements
	>50 MW, all types	Facility-specific cold startup time and energy	ISO PG A currently requires startup lead times for all facilities scheduling with the ISO	No incremental requirements
<b>9. Warm Startup Time And Energy</b>	<10 MW, all types	None	ISO PGA seems to require some data	None
	10-50 MW, all types	Facility permitted to use a generic value by technology	ISO PGA currently requires startup lead times for all facilities scheduling with the ISO	No incremental requirements
	>50 MW, all types	Facility-specific warm start-up time and energy	ISO PGA currently requires startup lead times for all facilities scheduling with the ISO	No incremental requirements
<b>10. Minimum Down Time</b>	<10 MW, all types	None	None	None
	10-50 MW, all types	Facility permitted to use a generic value by technology	ISO PGA requires this implicitly	This value is needed to model cycle time
	>50 MW, all types	Facility-specific down time	ISO PGA requires this implicitly	This value is needed to model cycle time

Power Plant Characteristics	Power Plant Size/Type	Proposed Reporting Requirement	EIA or Other Reporting Requirements	Rationale for Incremental Requirements
<b>11. minimum up time</b>	<10 MW, all types	None	ISO Participating Generator Agreement (PGA) seems to require some data	None
	10-50 MW, all types	Facility permitted to use a generic value by technology	ISO PGA currently requires minimum run time for all facilities scheduling with the ISO	No incremental requirements
	>50 MW, all types	Facility-specific up time	ISO PGA currently requires minimum run time for all facilities scheduling with the ISO	No incremental requirements
<b>12. Specific Data For Hydro Units</b>	<10 MW, all types 10-50 MW, all types	None Facility permitted to use a generic value by technology	None ISO PGA requires annual availability measured in MWh based on ten highest years of generation, limitations based on alternate usage of water, and other government restrictions	None No incremental requirements
	>50 MW, all types	Facility-specific data	ISO PGA requires annual availability measured in MWh based on ten highest years of generation, limitations based on alternate usage of water, and other government restrictions	No incremental requirements
<b>13. Specific Data For Pumped Storage Units</b>	<10 MW, all types	None	None	None
	10-50 MW, all types	Facility permitted to use a generic value by technology	ISO PGA requirements do not distinguish between hydro and pumped storage units, so hydro requirements apply	Minimal, if any
	>50 MW, all types	Facility-specific data for pumped storage units <sup>102</sup>	ISO PGA requirements do not distinguish between hydro and pumped storage units, so hydro requirements apply	Minimal, if any
<b>14. Contract Type(QF, RMR, other non-market arrangements</b>	All sizes, all types	Facility-specific information	ISO PGA requires description of all contract limitations on unit operations	No incremental requirements

## **APPENDIX D**

### **FACILITATING COMPLIANCE/COMPLIANCE OPTIONS FOR POWER PLANT CHARACTERISTICS DATA**

#### **Comprehensive Database**

The Committee proposes that Energy Commission staff develop a database review process to facilitate compliance with the regulations' reporting requirements. Generators would be sent a copy of the values for power plant characteristics which we currently use and which they are required to provide under the new data collection regulations. This approach is recommended because it will save respondent effort and avoid confusion about what data is specifically required. It may facilitate compliance with data reporting requirements.

The following steps would be involved with this database-review process:

- Step 1. Describe obligation to provide specific generating characteristics in new regulations.
- Step 2. Develop structure of database with fields for each specific data requirement.
- Step 3. Determine which fields require confidential treatment to avoid disclosure where prohibited.
- Step 4. Populate database with data from most current sources.
- Step 5. Sort database by owner of generator and generating unit.
- Step 6. Send owner a copy of the database's values for characteristics owner is required to provide.
- Step 7. Receive owner's updated database, or any other format of the required data, and the owner's legal attestation that its filing meets the regulatory requirements.
- Step 8. Review data received for compliance, accuracy and validity.
- Step 9. Send owner follow-up data requests where necessary and work with owner on any questions regarding accuracy and validity.
- Step 10. Receive omitted or corrected data from owner.
- Step 11. Repeat steps 9 and 10 until generator submits all data required by the new regulations.
- Step 12. Insert collected data into revised database.
- Step 13. Impose confidentiality protections at individual variable levels to prepare non-confidential version of database for unrestricted use.
- Step 14. Use and safeguard confidential database in accordance with proper procedures.

## APPENDIX E

### Illustrative Samples Of Forms For Fuel Price Estimation

#### Possible Form on Fuel Price Dispatch Decisions

A) Dispatch Price Option	B) Check If You Rely on This Price	C) For Each Price Indicate % Reliance
Current Delivered Price		%
Market Price		%
a. California		%
b. Topoch		%
c. Malin		%
d. Wheeler Ridge		%
None of the Above (If you checked column B in this row, please provide explanation of dispatch price used.)		%

#### Possible Form on Estimated Future Natural Gas Supply (Power Plant Site Name)

#### Estimated Future Natural Gas Supply Mix by Supply Source (Check the appropriate boxes)

Supply Mix	California	Topoch	Malin	Wheeler Ridge
0-20%				
21-40%				
41 to 60%				
61 to 80%				
81 to 100 %				

## APPENDIX F

Table F-1

### Comparison Of Generator Production And Fuel Use Reporting Requirements For Facilities Below 1 MW Capacity

	Reporting Requirement	Committee Proposal	Federal Reporting Requirements	Rationale for Incremental Requirements
<b>&lt;1MW Utility</b>	Data elements	Utilities provide interconnection database*	EIA Form 861 (V) requires utilities to provide list of all facilities in service area	No incremental reporting requirement
	Data unit	Facility	Facility	
	Frequency	Annual	Annual	
<b>&lt;1MW Non-Utility</b>	Data elements	Utilities provide interconnection database*	EIA Form 861(VI) requires utilities to provide list of facilities in service area	No incremental reporting requirement
	Data unit	Facility	Facility	
	Frequency	Annual	Annual	

Current QFER regulations require utilities to annually provide a listing of information for all self-generation facilities with capacity 10 MW and larger. This list has been used as the basis for Energy Commission contacting larger self-generators to facilitate compliance with self-generator reporting requirements. Utilities have compiled this information in conjunction with their responsibilities to ensure the safety of the distribution system and distribution workers who may encounter facilities that present safety concerns in various system emergencies. This proposal would simply direct utilities to submit an electronic database of all power plants interconnected to their distribution system, regardless of size, ownership, or power sales arrangements. The Energy Commission would use the information to estimate electricity production and fuel use in the aggregate by power plants less than 1 MW, and as a listing of the universe of all power plants.

## APPENDIX F-2

### (Table F-2)

#### Comparison Of Generator Production And Fuel-Use Reporting Requirements For Facilities Above 1 MW And Below 10 MW Capacity

Category	Reporting Requirement	Committee Proposal	Federal Reporting Requirements	Rationale for Incremental Requirements
<b>&gt;1 and &lt;10 MW Municipal Utility</b>	Data elements	Annual data: (1) SIC code for facility (2) net generation (3) peak capacity (4) fuel use (5) sales by SIC code	EIA Form 412 requires: (1) utility ID (2) generation (3) net peak demand (4) fuel use (5) sales by specific purchaser	Facility specific generation, capacity at peak demand, annual fuel use, and sales disposition are important in tracking industry activity and monitoring potential market power
	Data unit	Unit	Aggregate by technology type	
	Frequency	Annual	Annual	
<b>&gt;1 and &lt;10 MW Investor- Owned Utility</b>	Data elements	Annual data for: (1) SIC code for facility (2) net generation (3) peak capacity (4) fuel use (5) sales by SIC code	EIA Form 759 requires: (1) utility ID (2) generation (3) – (4) fuel use	Facility specific generation, capacity at peak demand, annual fuel use, and sales disposition are important in tracking industry activity and monitoring potential market power
	Data unit	Facility	Unit	
	Frequency	Annual	Monthly	
<b>&gt;1 and &lt;10 MW Non-Utility</b>	Data elements	Annual data for : (1) SIC code for facility (2) generation (3) peak capacity (4) fuel use (5) sales by SIC code	EIA form 860B requires: (1) SIC code for facility (2) generation (3) peak obligation (5) fuel use (5) sales by purchaser name	EIA requires specific name and sales to utilities, power marketers and end-users rather than just SIC code of purchasers
	Data unit	Facility	Facility	
	Frequency	Annual	Annual	

## APPENDIX F-3

**(Table F-3) Comparison of Generator Production And Fuel Use Reporting Requirements For Facilities Above 10 MW And Below 50 MW Capacity**

Category	Reporting Requirement	Committee Proposal	Federal Reporting Requirements	Rationale for Incremental Requirements
<b>&gt;10 and &lt;50 MW Utility</b>	Data Elements	Monthly data for: (1) SIC code for facility, (2) generation, (3) peak capacity, (4) fuel use, (5) sales by SIC code	EIA 767 requires monthly : (1) -- (2) generation, (3) capacity, (4) fuel use, (5) -- (6) fuel quality, (7) environmental data EIA 759 requires monthly: (1) -- (2) generation, (3) capacity, (4) fuel use, (5) -- (6) fuel stocks	More frequent filings of comparable information are necessary in order to have timely data in monitoring market activity, and to be able to detect changes in trends that necessitate closer observation
	Data unit	Unit	Facility for EIA 767 and 759	
	Frequency	Quarterly	Annual for EIA 767 Monthly for EIA 759	
<b>&gt;10 and &lt;50 MW Non-Utility</b>	Data Elements	Monthly data for: (1) SIC code for facility, (2) generation, (3) peak capacity, (4) fuel use, (5) sales by SIC Code	EIA Form 867 requires annual: (1) SIC code for facility, (2) generation, (3) peak obligation, (4) fuel use, (5) sales by purchaser name	Committee proposals would imply: (1) finer time intervals of data, (2) more frequent reporting, but (3) less intrusive reports of the disposition of energy
	Data unit	Unit	Facility	
	Frequency	Quarterly	Annual	

**Appendix F-4 (Table F-4)**  
**Comparison Of Generator Production And Fuel Use Reporting Requirements**  
**For Facilities Above 50 MW Capacity**

Category	Reporting Requirement	Committee Proposal	Federal Reporting Requirements	Rationale for Incremental Requirements
>50 MW Utility	<b>Data Elements</b>	Monthly data for: (1) SIC code for facility (2) generation (3) peak capacity (4) fuel use (5) sales by SIC code (6) fuel cost or price	EIA 767 requires monthly: (1) generation, (2) capacity, (3) fuel use, (4) fuel quality, (5) environmental data EIA 759 requires monthly: (1) generation, (2) capacity, (3) fuel use, (4) fuel stocks FERC Form 423 requires: (1) cost of fuels, (2) quality of fuels, (3) source of fuel used	Committee proposals imply less frequent reporting of less data. No fuel stock, fuel quality, or environmental data are required by the CEC.
	<b>Data unit</b>	Unit	Facility for FERC 423	
	<b>Frequency</b>	Quarterly	Annual for Form 767 Monthly for Form 759 Monthly for FERC 423	All non-utility power plants in this size range will file FERC Form 423 and EIA Form 759 monthly, so use of Federal Government forms as a compliance option consists of submitting three monthly Form 423s and Form 759s each quarter to the CEC.
>50 MW Non-Utility	<b>Data elements</b>	Monthly data for: (1) SIC code for facility (2) generation (3) peak capacity (4) fuel use (5) sales by SIC code (6) fuel cost or price	EIA Form 867 requires annual data for: (1) SIC code for facility, (2) generation, (3) peak obligation, (4) fuel use, (5) sales by purchaser name EIA Form 900 requires monthly: (1) generation, (2) fuel use, (3) fuel stocks	The Committee proposes that non-utilities submit fuel cost data. This creates an equivalence of utility and non-utility reporting requirements.
	<b>Data unit</b>	Unit	Unit	
	<b>Frequency</b>	Quarterly	Annual for Form 867 Monthly for Form 900	All non-utility power plants in this size range will file Form 900 monthly, so use of EIA forms as a compliance option consists of submitting three monthly Form 900's each quarter to the CEC.